Vaccinex, Inc. Announces Preliminary Data from the SIGNAL Clinical Trial (Investigational Drug VX15/2503 as a Potential Treatment for Huntington's Disease)

April 24, 2017

– Subjects were rapidly recruited and consistently retained and dosed –
– No concerning safety signals were identified –
– Imaging data from SIGNAL Cohort A indicate treatment effect on preservation of brain structure and metabolic activity –

ROCHESTER, N.Y., April 24, 2017 (GLOBE NEWSWIRE) – Vaccinex, Inc., a privately-held clinical-stage biotechnology company engaged in the discovery and development of therapeutic monoclonal antibodies to treat patients with cancer and neurodegenerative diseases, announced today that a pre-planned analysis of data from Cohort A of the SIGNAL trial was completed. In June 2015, Vaccinex, the Huntington Study Group (HSG), and the University of Rochester's Clinical Trials Coordination Center launched SIGNAL, the first clinical trial to investigate a monoclonal antibody as a potential treatment for Huntington's disease (HD).

The SIGNAL trial is a Phase 2, multi-center, randomized, double-blinded, placebo controlled study in subjects with late prodromal and early manifest HD to assess the safety, tolerability, pharmacokinetics, and efficacy of VX15/2503 ("VX15"), an antibody to semaphorin 4D, a molecule that has been shown to regulate the activation and migration of inflammatory cells and to inhibit differentiation of oligodendrocyte precursors in the brain. The study consists of two Cohorts, A and B. Thirty-six participants were randomized into the now completed Cohort A to receive monthly infusions of either VX15 or placebo for six months, in a double-blind fashion. All participants in Cohort A subsequently received open-label VX15 for another five months, followed by a three-month safety follow-up.

A significant relationship between decreasing imaging measures and disease progression in HD was previously demonstrated in the much larger PREDICT-HD and TRACK-HD studies [1-3]. A major focus of the present SIGNAL study, therefore, includes the use of brain imaging measures, Magnetic Resonance Imaging (MRI) and fluorodeoxyglucose (FDG)-positron emission tomography (PET, FDG-PET), in order to investigate the impact of treatment on changes in brain structure (MRI) and metabolic activity (FDG-PET). Cohort A participants in the SIGNAL study underwent imaging at baseline and after 6 and 11 months of treatment. A second goal of the study was to collect data on the variance of potential treatment effects of VX15 on quantitative motor and cognitive assessments so as to project the required group size for investigation of such effects in Cohort B.

Analysis of imaging data from subjects in Cohort A suggests that treatment with the VX15 antibody moderates or prevents the decrease in MRI volume and metabolic activity in many brain cortical regions which otherwise decreased at an annualized rate of 2% to 3% in the placebo control group. Similar imaging changes were detected in both early manifest and late prodromal subjects, particularly as regards changes in metabolic activity. Although only 36 subjects were enrolled in Cohort A and the duration of treatment was relatively short, the data encourage further investigation of clinical effects of treatment. Accordingly, the results of motor and cognitive assessments provided important guidance for projecting the group size required to detect clinical effects in the continuing Cohort B study.

The SIGNAL trial is based on prior research on neurodegenerative disease mechanisms, where it was demonstrated in preclinical models that semaphorin 4D ("SEMA4D") triggers activation of both microglia and astrocytes, the main innate inflammatory cells of the central nervous system [4,5]. Chronic activation of microglia and astrocytes has been implicated as a potentially important disease mechanism in HD, progressive multiple sclerosis ("MS") and other neurodegenerative disorders. VX15 antibody is designed to block the functional activity of SEMA4D.

Dr. Maurice Zauderer, President and Chief Executive Officer of Vaccinex, said:

"We believe that preliminary imaging measures in Cohort A of our SIGNAL clinical trial have provided an early indication of potential benefit of VX15 in HD. These data have provided important direction to the design and prospective designation of clinical endpoints for the continuing Cohort B."

For more information about the SIGNAL trial and enrollment, visit the Huntington Study Group website, www.huntingtonstudygroup.org.

About Vaccinex, Inc.

Vaccinex, Inc. is a privately held clinical-stage immunotherapy company engaged in the discovery and development of human therapeutic monoclonal antibodies to treat cancer and neurodegenerative diseases, including Huntington's disease. Vaccinex utilizes its proprietary ActivMAb® Antibody Discovery Technology for rapid, mammalian cell-based antibody selection to build its antibody pipeline and in service to its biopharmaceutical partners. ActivMAb® combines the advantages of rapid and sensitive selection by virus panning and cell sorting in one technology, with intrinsic selection of antibodies that are efficiently expressed and stable in mammalian cells. We believe that recent advances have made this technology very efficient for selection of antibodies against membrane associated proteins, an important class of target molecules for pharmaceutical development. Vaccinex is based in Rochester, New York. For more information and to contact Vaccinex (info@vaccinex.com) or visit www.vaccinex.com.

About the Huntington Study Group (HSG)

The Huntington Study Group is an independent, not-for-profit network of 400 researchers, coordinators, and other clinicians at more than 100 academic medical centers in the United States, Canada, Australia, New Zealand, South America, and Europe, that work together to seek treatments that make a difference for people affected by Huntington disease. It has facilitated more than 30 clinical trials and studies in HD with more than 10,000

at-risk, prodromal and manifest HD participants.

Cautionary Note on Forward-Looking Statements

This press release contains forward-looking statements reflecting the current beliefs and expectations of management. Words such as "may," "believe," "will," "expect," "plan," "anticipate," "estimate," "intend" and similar expressions, as well as other words or expressions referencing future events, conditions or circumstances, are intended to identify forward-looking statements. Forward-looking statements contained in this press release include statements about expectations related to a Phase 2 clinical trial for the Company's lead monoclonal antibody, VX15/2503. Forward-looking statements in this press release involve substantial risks and uncertainties that could cause our performance or achievements to differ significantly from those expressed or implied by the forward-looking statements, including as a result of the inherent challenges in clinical development. All forward-looking statements are based on Vaccinex's expectations and assumptions as of the date of this press release, and actual results may differ materially. Except as required by law, Vaccinex expressly disclaims any responsibility to update any forward-looking statement contained herein, whether as a result of new information, future events or otherwise.

Press Contact via Email Only

Raymond E. Watkins
Senior Vice President & Chief Operating Officer
Vaccinex, Inc.
rwatkins@vaccinex.com

References:

[1] Paulsen, JS, et. al. Clinical and biomarker changes in premanifest Huntington Disease show trial feasibility: a decade of the PREDICT-HD study, Frontiers in Aging Neuroscience 2014; 6,78.

[2] Tabrizi, SJ, et. al. Potential endpoints for clinical trials in premanifest and early Huntinton's Disease in the TRACK-HD study: analysis of 24 month observational data, Lancet Neurology 2012; 11:42-53.

[3] Tabrizi, SJ, et. al. Predictors of phenotypic progression and disease onset in premanifest and early-stage Huntington's disease in the TRACK-HD study: analysis of 36-month observational data, Lancet Neurology 2013; 12,637-649.

[4] Smith ES, et. al. SEMA4D compromises blood-brain barrier, activates microglia, and inhibits remyelination in neurodegenerative disease. Neurobiology of Disease 2014 Oct 18;73C:254-268.

[5] Southwell AL, et.al. Anti-semaphorin 4D immunotherapy ameliorates neuropathology and some cognitive impairment in the YAC128 mouse model of Huntington disease. Neurobiology of Disease 2015 Feb 3; 76:46–56.